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N° 8804 A.D. 1890

Date of Application, 7th June, 1890
Complete Specification Left, 26th Feb., 1891—Accepted, 9th May, 1891

PROVISIONAL SPECIFICATION.

Improvements in and connected with the Manufacture of Substances of Food, especially relating to the Manufacture of Bread, Biscuits, Cakes, and Infants' Food.

I WILLIAM HENRY GOVER of Leigh Road, Eastleigh in the County of Southampton England Baker & Confectioner do hereby declare the nature of this invention to be as follows :—

This invention which relates to improvements in & connected with the Manufacture of Substances for the Manufacture of Bread Biscuits Cakes and Infants Food fermented or unfermented and the process employed therein has for its object to produce from corn, *i.e.* wheat barley or oats in a raw, fabricated, or malted state " or the husks of corn aforesaid, better bread biscuits cakes & infants food, making the same more nutritious, healthy, easily digestible richer in nitrogenous substances *i.e.* phosphates gluten &c. and further preventing fermented dough souring together with the name applied to the same, *viz.*

Higenic phosphated food, bread, biscuits, cakes, and infants food respectively.

This my invention consists of ingredients substances, or extracts as follows :—

No. 1. PHOSPHATED EXTRACT OF WHEAT MEAL.

Take any quantity of bran or the offal of wheat meal add sufficient water at about 160 or 170 degrees Fahr. or turn on sufficient steam with or without water (hot or cold) to soak or mesh about 3 hours. Press out the extract, it is then preferably evapourated, precipated or salted for the purpose of keeping it.

No. 2. MALT EXTRACT.

Take any quantity of malt soak in water & filter till bright.

No. 3. PREVENTATIVE MIXTURE.

Take about 5 lb. of lime add to a phail " 3 galls." of water let it stand for 24 hours & filter it is then ready for use.

For fermented goods I make an ordinary baker's sponge according to the various kinds of bread &c. required " with or without " the addition of lime water. I then divide it into two or more portions and place them in seperate vessals or troughs and define them as sponges 1, 2, or more in number as may be required.

No. 1 sponge, I allow to remain untouched for several hours.

No. 2 sponge I add sufficient lime water to cover it and let it lie for several hours when the sponges are ready for use I draw the lime water from No. 2 sponge. I then add the sponge No. 2 to sponge No. 1. I then add sufficient water with or without the lime water, salt phosphated extract or malt extract together or seperate.

And further for unfermented goods, bread biscuits cakes & infants food. I add sufficient quantity, " together or seperatelly " of phosphated extract or malt extract with the ingredients intended for the manufacture of same.

Date this Sixth day of June 1890.

W. H. GOVER,
Inventor.

[*Price* 6*d.*]

COMPLETE SPECIFICATION.

Improvements in and connected with the Manufacture of Substances of Food, especially relating to the Manufacture of Bread, Biscuits, Cakes, and Infants' Food.

I WILLIAM HENRY GOVER of Leigh Road, Eastleigh in the County of Southampton, England, Baker & Confectioner do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

This invention which relates to improvements in & connected with the Manufacture of substances for the manufacture of Bread, Biscuits, Cakes & Infants Food and the process employed therein has for its object to produce from corn *i.e.* wheat barley oats & other creals in a raw fabricated or malted state or the husks of the above corn or creals the extracted phosphates or peptones, either in a liquid or powder form from the combination or otherwise of raw & malted grain such extract to be hereinafter described as malted phosphates to be used for the purpose of rendering food stuffs easily digestable richer in phosphates, *i.e.*, bone forming substances & rendering greater fermenting powers and further a prevention against fermented doughs souring.

In carrying out this my said invention I extract the nutritious phosphates or peptones from malt & wheat meal preferably in the following manner :—

Take 84 lb. of bran or offal of wheat meal mash with steam or hot water for about 3 hours then press out the liquid add the same proportion of malt to the liquid let it stand for a considerable time then press out should there be any goodness left in the bran or malt repeat the application of steam or hot water to extract the same this extract may then be evapourated to a thick mass or powder form for exportation but for local use it is more convenient to work at about the following scale.

To every 84 lb. of mixed offal of wheat meal & malt add 40 galls. of hot water for about 3 hours strain of. I have then about 36 galls. at a specific gravity of 1038-3 or equil to 36 lb. of solid extract. For the purpose of bread making I use the following : to every 280 lbs. of flour 4 lbs. of solid extract or a corresponding proportion of liquid this may be added at any part of the process of ordinary bread makeing with the usual proportions of salt, water, & yeast when baked the bread thus produced will bear out the following anylisis, as compaired with other standard breads

Govers Phosphated Bd.	Aërated Bd. Co. Bd.	Allinsons Whole Meal Bd.
Water 41·65 %	39·9 %	46·78 %
Albuminoids 8·69 %	8·78 %	8·69 %
Phosphoric Acid 0·32 %	0·6 %	0·30 %

By the above I have clearly shewn that bread made with extract above is more nutritious than bread made with wheat meal retaining its natural colour without containing the excess of woody fiber as in wheat meal bread.

The process of fermentation may be greatly improved by the use of this extract and will well replace the ordinary potatoes when desired if used in the ferment it strengthen the least cell thereby avoiding sour bread in hot weather.

For increasing the bone forming digestable properties in bread, biscuits, cakes & infants food fermented & unfermented by the use & addition of malted phosphates. Also rendering whole meal bread by its addition more digestable by the action of extract on the bran & the reduction of starch in baking.

And further as a means of preventing fermented dough souring I use as a restrainer a solution of lime water with or without the addition of free phosphoric acid or the acid phosphates of lime & magnesia in proportions of from 2 to 20 oz.

to the sack of flour as required according to the temperature &c. thereby giveing greater latitude in working powers.

I do not confine myself to any particular proportions to be used as they may be increased or reduced at will but what I claim is the use of the extract of malt & wheat meal for the aforesaid purposes & further the use of the earthly salts of magnesia lime & phosphoric acid in a liquid or powder form as a restrainer against fermented dough souring.

Having now particulary described & ascertained the nature of my said invention and in what manner the same be performed, I declair what I claim is

1st. The manufacture of a combined extract of malt & wheat meal as described in this invention or any modification of the same for the use as food, bread biscuits cakes & infants food.

2nd. The use of an extract of malt & wheat meal for the purpose of queckning the process of fermentation.

3rd. The manufacture of a bread restrainer as described in this invention or any modification of the same for the purpose of preventing fermented dough souring and the application of bread restrainer to dough stuffs.

Date this 25th day of February 1891.

W. H. GOVER,
Inventor.

London : Printed for Her Majesty's Stationery Office, by Darling & Son, Ltd.—1891.